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IUCN SSC
Human-Wildlife
Conflict & Coexistence
SPECIALIST GROUP

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HUMAN-WILDLIFE CONFLICT & COEXISTENCE
/ CASE STUDIES

BUILDING SUSTAINABLE CAPACITY TO MANAGE IMPACTS BETWEEN HUMANS AND WILDLIFE FOR DIFFERENT STAKEHOLDER GROUPS

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INTRODUCTION

In the north-western part of Zimbabwe, the Hurungwe district of Mashonaland West province experiences high levels of human-wildlife conflict. The Hurungwe district is a part of two conservation and development initiatives: the Lower Zambezi-Mana Pools Transfrontier Conservation Area and the Middle Zambezi Biosphere Reserve, both bordered by the Mana Pools National Park, the Phundundu Wildlife Area, the Hurungwe Safari Area and the Sapi Safari Area, which are all protected areas. The landscape contains a variety of wildlife species, including African buffalo *Syncerus caffer*, eland *Taurotragus oryx*, African elephant *Loxodonta africana*, lion *Panthera leo*, brown hyaena *Hyaena brunnea* and spotted hyaena *Crocuta crocuta*.

HUMAN-WILDLIFE CONFLICT IN THIS DISTRICT STEMS MAINLY FROM PREDATION ON LIVESTOCK BY LARGE CARNIVORES, CROP DESTRUCTION, ATTACKS ON HUMANS AND OTHER ISSUES ARISING FROM THE MANAGEMENT OF PROTECTED AREAS.

KEY INSIGHTS & LESSONS LEARNT
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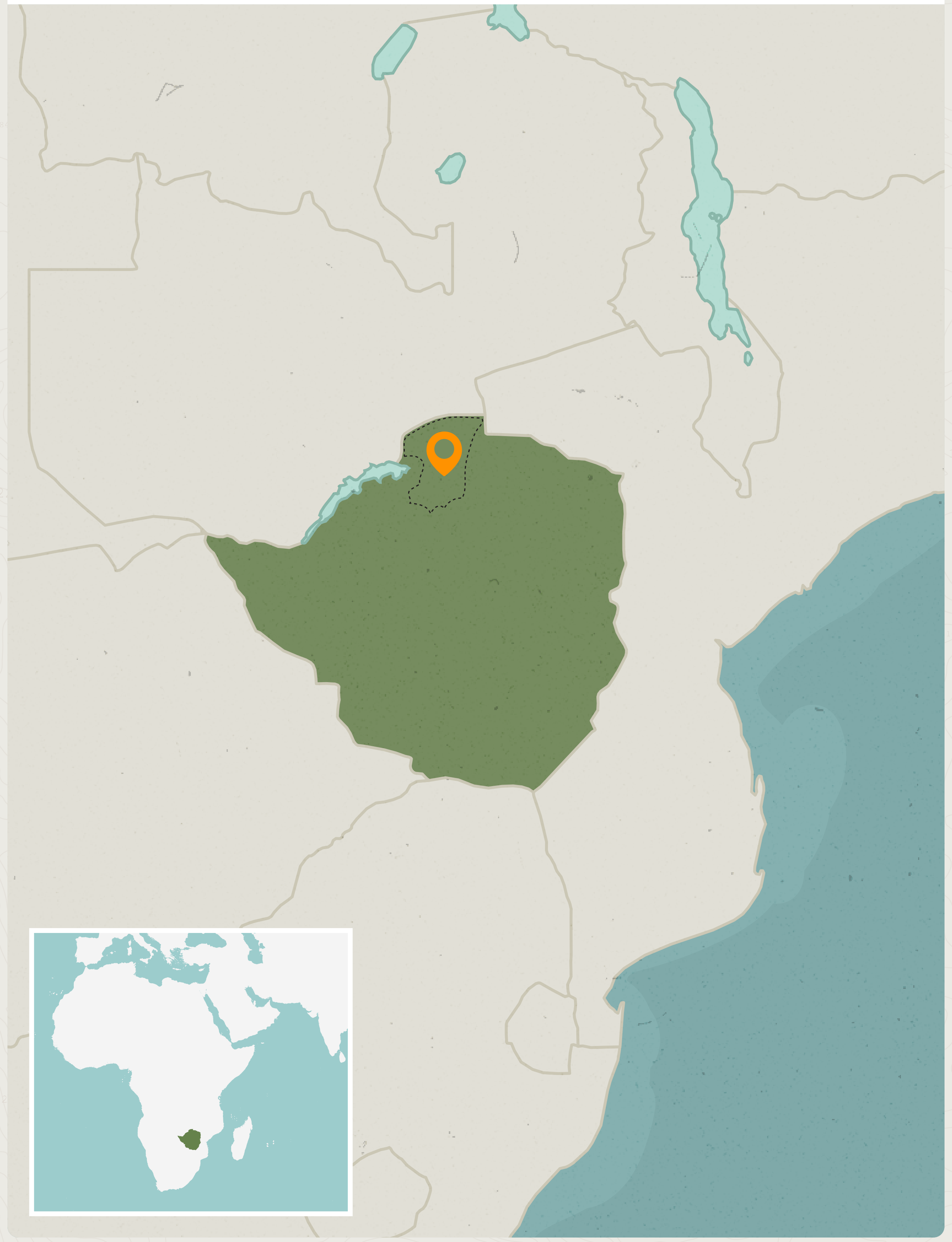
LOWER ZAMBEZI-MANA POOLS TRANSFRONTIER CONSERVATION AREA AND THE MIDDLE ZAMBEZI BIOSPHERE RESERVE

ZIMBABWE

HURUNGWE DISTRICT, ZIMBABWE



Source: Free Vector Maps modified to comply with UN, 2020

Free Vector Maps 2022. World Map [online] [Cited 5 January 2022] https://freevectormaps.com/world-maps/WRLD-EPS-03-0001

The area is also vulnerable to the transmission of Foot and Mouth Disease (FMD) from the African buffalo to cattle, which can devastate farmers' livelihoods, as they are often left unable to trade the meat.

In 2019, the Food and Agricultural Organisation of the United Nations (FAO) initiated an emergency development project, funded by the Government of Japan, in collaboration with a wide range of partners. These partners included: the Ministry of Environment, Climate, Tourism and Hospitality, the Zimbabwe Parks and Wildlife Management Authority (ZIMPARKS); the Environmental Management Agency; the Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement, particularly the Department of Livestock and Crop Production and the Department of Veterinary Services; the Rural District Council for Hurungwe; local authorities, including traditional leaders and farmers. The project was initially meant to be completed within one year, but it was extended for more than two years (from April 2019 to July 2021), to account for delays due to the COVID-19 pandemic.

> **THE PROJECT PILOTED INNOVATIVE HUMAN-WILDLIFE CONFLICT PREVENTION AND MITIGATION STRATEGIES, ALTERNATIVE LIVELIHOOD OPTIONS AND LIVESTOCK DISEASE MANAGEMENT APPROACHES.**

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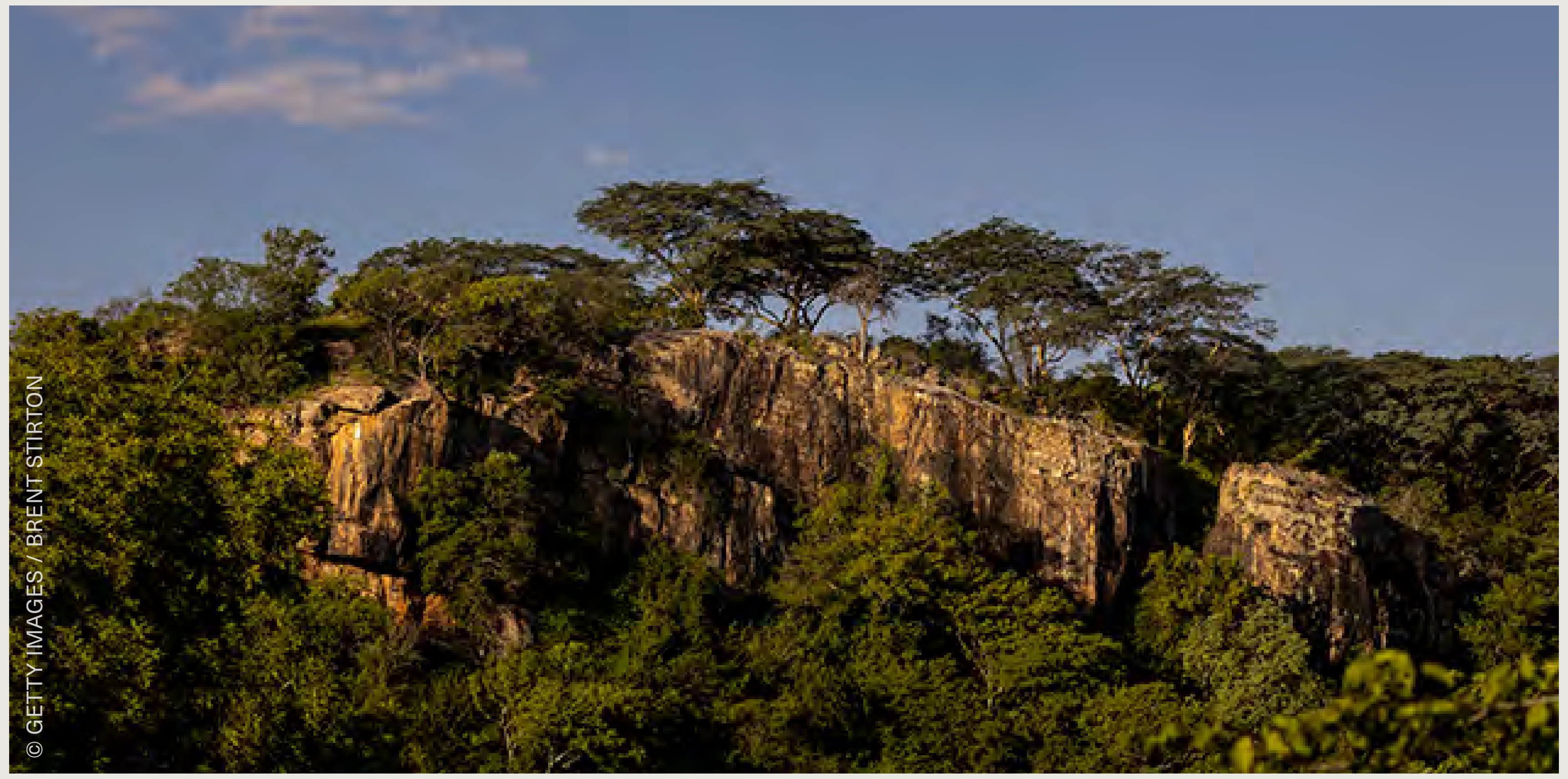

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ANALYSIS

The Hurungwe district was selected because the local communities lacked the mitigation capabilities to address the issue on their own. Human-wildlife conflict in the district affected people's food security, nutrition and health, as well as it being an indirect impediment to children getting a quality education. It was also observed that many of the Community-Based Natural Resource Management (CBNRM) groups, such as the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) had stopped operating and tackling the issues due to a lack of awareness and other economic considerations.

Alongside the impacts predators and herbivores were causing to farmers' livestock and crops, the outbreaks and transmission of FMD in the district were frequent and prevalent, affecting the market value of cattle in the area.

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PROCESS

The project's delay resulted in the initially proposed activities being reassessed together with the communities and its implementation partners, as to realign activities with the existing and new priorities in the district. In December 2019, FAO hosted a workshop with all project implementers, including local councils and key leaders within certain communities.

FAO TOOK A CONSULTATIVE, INCLUSIVE AND PARTICIPATORY APPROACH IN ORDER TO ASCERTAIN WHICH PROPOSED ACTIVITIES SHOULD BE CONTINUED AND WHICH WERE NO LONGER A PRIORITY.

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Several stakeholders were identified during the consultative process, as to who should conduct which project activities, based on their specific expertise. For example, activities involving animal health were assigned to the Department of Livestock and Veterinary Services, while capacity-building training for alternative livelihoods was entrusted to the Department of Agriculture and Technology Extension Services and ZIMPARKS. The Rural District Council for Hurungwe worked directly with the communities through the project officers, responsible for liaising with the communities and the government. The project officers formed working teams within the communities to ensure community members' active participation and the continuity of the interventions. The project remained fully adaptable to the needs of the communities during the implementation phase, especially as the COVID-19 pandemic greatly disrupted activities.

ACTIVITIES

To ensure the continuity of the activities beyond the project's timeframe, a capacity building exercise was conducted for the existing CAMPFIRE committees of the district. The CAMPFIRE committees' knowledge on how to properly manage natural resources was significantly strengthened. Co-designed and owned by the communities, the infrastructure, such as cattle bomas and apiaries, were put in place by the project. The Government of Zimbabwe played a supervisory role, guaranteeing that all project activities were run correctly, inclusively and sustainably.

THE PROJECT SET UP LEADERSHIP FORUMS IN THE COMMITTEES, AS A MEANS TO DEVELOP TARGETED STRATEGIES TO REDUCE HUMAN-WILDLIFE CONFLICT.

These activities benefited from cross-operational synergies with other local projects that focused on strengthening the groups' commitment.

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Training was provided for community leaders and the communities themselves, on conflict management techniques, covering the importance of planning for conflict incidents beforehand and in particular during the agricultural season, and reporting incidents to the authorities. Training was also provided on chilli-based deterrents as an elephant damage mitigation measure, and alternatives for addressing livestock predation. Simultaneously, communication materials were produced and distributed to communities to make them aware of human-wildlife conflict in general.

When addressing livestock predation in the district, the project initially planned to focus on building goat pens and fowl runs (an enclosed yard for keeping poultry), as predation on these domestic animals was perceived as a problem. However, during the discussions with farmers, it became apparent that predation on cattle was a more significant issue.

> FARMERS SPECIFICALLY REQUESTED SUPPORT FOR BUILDING BOMAS TO PROTECT CATTLE RATHER THAN THE SMALL LIVESTOCK SUCH AS GOATS AND SHEEP.

Having identified areas where cattle predation was reported to be high, three livestock bomas were constructed, lined with a black plastic sheet to prevent carnivores from seeing the cattle and setting off an attack. This allowed the farmers to bring their cattle together at night to protect them from predators, with each boma being managed by the community.

To create alternative livelihood options and reduce impacts by elephants, beehive fences were piloted in three Hurungwe wards (wards 4, 7 and 8). Training was provided on apiculture for the communities of these three wards and for officers from the Department of Agricultural, Technical and Extension Services. Having identified the elephant movement pathways toward fields, the communities positioned the beehive fences to deter the elephants from moving into the communal lands. Six apiaries were set up in total, with each apiary comprising at least 17 beehives, situated along the known elephant corridors.

> **THE MANAGEMENT OF THE APIARIES WAS LED THROUGH COMMUNITY COMMITTEES, WITH EQUAL REPRESENTATION IN TERMS OF GENDER AND AGE GROUPS.**

Chilli-based deterrents, including chilli strings and fences, were deployed to deter elephants further along the elephant corridors.

Although the Hurungwe District had been declared free of FMD, sero-surveillance sampling was conducted in the wards which had any contact with wildlife, in order to ascertain if FMD was still present, and provide feedback to the communities on diseases that might be infecting their livestock. The project trained 300 farmers in the district on disease surveillance and awareness, through Training of Trainers workshops. Initially, the training was provided to extension staff from the communities, who were then tasked with training at least six farmers each in their respective local community. Extension staff were also trained on active and passive disease surveillance of transboundary animal diseases (TADs), including how to collect samples from various domestic species and how to correctly preserve the samples for later processing by a laboratory.

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Living in harmony with wildlife

> **FAO ALSO DEVELOPED AND LAUNCHED A MOBILE APPLICATION, CALLED EMA-I, TO IMPROVE ANIMAL DISEASE FIELD DATA COLLECTION AND REPORTING, AND ENHANCE SURVEILLANCE TO RESPOND TO INCIDENTS, PARTICULARLY IN AREAS WITH LIMITED INTERNET ACCESS.**

The application facilitated the distribution of information on animal disease reporting between all stakeholders, allowing the centralization of data and enabling decision-makers to assess the situation at a national level and respond swiftly and appropriately. During the project period, training was provided to the Department of Veterinary Services field staff in the Hurungwe district on the use of the EMA-i app, so that real-time disease reporting at high-risk hotspots where livestock and wildlife overlap could be conducted.

OUTCOMES

AN EVALUATION OF THE PROJECT TOOK PLACE USING A MIXED-METHODS APPROACH, CONSISTING OF INTERVIEWS WITH LOCAL LEADERS AND CRITICAL IMPLEMENTERS, FOCUS GROUP DISCUSSIONS WITH COMMUNITY MEMBERS AND OBSERVATIONS FROM PROJECT SITES TO ASSESS WHETHER CRUCIAL OUTCOMES HAD BEEN ACHIEVED.

Although it was not possible to determine quantitatively whether the activities conducted had actually reduced the impacts on the communities, respondents reported that the chilli strategies used were perceived as efficient. The strategies had reduced the need for community members to sleep in fields guarding crops, allowing children to attend school regularly, and freeing up their time to conduct other tasks. It was impossible to fully determine the success of the apiaries or livestock bomas, as they had only just been established at the end of the project. However, some of the beehives were starting to be colonised by the time the evaluation took place, even if performance could not be properly assessed.

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KEY INSIGHTS & LESSONS LEARNT

01 FLEXIBLE FUNDERS AND ADAPTABLE ACTIVITIES

Following the initial consultation with project stakeholders, many of the original activities were adapted to ensure they were appropriate for the affected communities. The project funders agreed upon these adaptations, especially taking into account the COVID-19 pandemic. The funders communicated to FAO on what they felt would still be advisable to do and what might need to be altered, which in turn made the funding structure more flexible and adaptable.

02 IMPORTANCE OF CAPABLE PARTNERS

Although FAO was supposed to implement many of the activities, the COVID-19 pandemic restricted the movement of its personnel between different districts in Zimbabwe. Therefore, many of these activities, such as the apiculture training, establishment of management committees, construction of livestock bomas and chilli fences were conducted by capable colleagues from the Government of Zimbabwe, especially ZIMPARKS, who were local to the project areas and could report back to FAO on the progress made and insights gained.

03 LACK OF BASELINE

Due to the project timeframe and the COVID-19 pandemic, it was impossible to develop a project baseline, making it harder to determine whether the activities conducted had a quantifiable effect on the ground, and if they had helped to reduce negative impacts between wildlife and people.

04 IMPORTANCE OF PROMPT DELIVERY OF MATERIALS

Rather than purchasing beehives locally, the procurement approach chosen resulted in them being bought abroad. While the procurement system created transparency in the purchase of materials, it caused delays that frustrated the beneficiaries and stakeholder, which in turn created a certain level of mistrust. The delays made it necessary to offer refresher training courses, to reinstruct beneficiaries on how to properly manage the beehives. However, once the beehives were provided, the beneficiaries were optimistic they would be effective.

05 WILLINGNESS OF COMMUNITIES

The project illustrated that commitment of the communities and of the Community Councils is a vital aspect for success. Their willingness to participate in the project and to overcome challenges and delays were critical to the project. Without goodwill and this willingness to adapt to unforeseeable realities, the project would not have been successful.

06 BENEFICIARIES AND IMPACTS ADDRESSED

The project addressed the concerns of a diverse range of community beneficiaries. By integrating the work to address livestock predation, crop destruction and disease transmission, concomitantly, many of the concerns of the beneficiaries were addressed simultaneously and practical solutions were implemented.

07 INCLUSIVE AND COLLABORATIVE APPROACH

By working with a diverse range of stakeholders, a collaborative approach to implement the project was chosen, whereby different stakeholders implemented the activities they had expertise in, ensuring a diverse range of activities could be conducted in tandem.

FURTHER INFORMATION

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ABOUT THE CASE STUDIES

The **Food and Agriculture Organisation of the United Nations** (FAO) and the **IUCN SSC Human-Wildlife Conflict and Coexistence Specialist Group** (HWCCSG) have jointly developed a set of case studies with the aim of covering the process projects have taken to manage various aspects of a human-wildlife conflict & coexistence situation. This case study is one of many that will be used to illustrate key components of the **IUCN SSC Guidelines on Human-Wildlife Conflict & Coexistence**. The published case studies can be found in the **Human-Wildlife Conflict & Coexistence Library**.

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